8.3 Cultural Resources

Cultural resources include archaeological and historical sites, objects, and districts; historic structures, cultural landscapes; and sites of concern to local Native Americans and other ethnic groups. This section documents the cultural resources that could be adversely affected by the construction and operation of the Tracy Peaker Project (TPP). Measures are proposed to mitigate potential adverse impacts to cultural resources.

This analysis was completed in compliance with California Energy Commission (CEC) *Instructions to the California Energy Commission Staff for Review of and Information Requirements for an Application for Certification* (CEC, 1992) and *Rules of Practice and Procedure and Power Plant Site Certification Regulations* (CEC, 1997). The analysis also took into account the CEC's regulations for the six-month Application for Certification (AFC) process, 20 California Code of Regulations (CCR), Sections 2021-2031. Detailed information on the cultural resources in the TPP study area has been included in a confidential technical appendix (Appendix C) to this AFC and submitted to the CEC under a request for confidentiality pursuant to Title 20, CCR Section 2501 et seq.

8.3.1 Affected Environment

8.3.1.1 Study Area

GWF Energy LLC proposes to build and operate the Tracy Peaker Project (TPP), a nominal 169-megawatt (MW) simple-cycle power plant, on a nine-acre, fenced site within a 40-acre parcel in an unincorporated portion of San Joaquin County. The site is located immediately southwest of Tracy, California, and approximately 20 miles southwest of Stockton, California. The TPP would consist of the power plant, an onsite 230-kilovolt (kV) switchyard, an approximately five-mile, 230-kV electric transmission line, an approximately 1,470-foot water supply pipeline (as measured from the fence line), an onsite natural gas supply interconnection, and improvements to an existing dirt access road approximately one mile in length. An approximately 5.2-acre area west of the plant fence line and within the 40-acre parcel would be used for construction laydown and parking. Figure 2-1 shows the regional location of the GWF site. Figure 2-2 shows the immediate site location of the GWF project, including the location of the proposed generating facility and the proposed transmission, water supply, and access routes. The plant site and all linear project components were subjected to a records search with a 0.5-miles study

area (i.e., 0.5 mile on each side of the centerline for linear components, and a 0.5-mile study area around the outer boundaries of the plant site). Table 8.3-1 outlines all project components addressed in this section.

8.3.1.2 Project Description

The project components are detailed further in Section 2.0 (Project Description). The proposed TPP consists of the following major components (see Figure 8.3-2).

Plant Site. The TPP plant site would be located on a nine-acre parcel, 0.75 miles south of Schulte Road, 0.75 miles west of Lammers Ferry Road, and approximately 1.25 miles east of Interstate 5. The property is bounded by the Delta-Mendota Canal to the west, agricultural property to the south and east, and the Union (Southern) Pacific Railroad to the north. Immediately north of the railroad are the Owens-Brockway glass container manufacturing plant and the Nutting-Rice warehouse. The Tracy Biomass facility is approximately 0.5 miles to the northwest. The proposed TPP plant site is undeveloped and currently used for agriculture. The plant would be a 169-megawatt (MW) natural-gas-fired peaker plant. The 5.2-acre construction staging area would be located within the 40-acre parcel.

Water Supply Line. A new 12-inch-diameter, 1,470-foot-long water supply line would extend southeast from the TPP site along an existing dirt farm road and adjacent to the Delta-Mendota Canal, where it would connect to an existing turnout.

Transmission Line. A 230-kilovolt (kV) transmission line (TPP Generator Tie-line) would be used to interconnect the proposed TPP site with the existing Tesla Substation located five miles southwest of the TPP plant site. A new transmission line would begin at TPP and head southwest for approximately 2.8 miles, where it would connect with the existing Tesla-Wesley 230-kV transmission line. At this point, the existing transmission line would be reconductored for approximately 2.1 miles and continue northwest into the Tesla Substation. To fit the reconductored line, an existing transmission line would be removed and relocated around the Tesla Substation. The reconductoring and removal would be done on transmission lines that are less than 25 years old. The new transmission line and reconductored line would run over agricultural and grasslands.

Access Road Easement. The proposed easement originates at the intersection of Schulte Road and an unnamed dirt road on the west side of the Owens-Brockway plant and Tracy Biomass plant. It would proceed southward to the Union (Southern) Pacific Railroad (UPRR) right-of-way. This 0.8-mile-long dirt road would be improved with asphalt paving, and a "private owner" easement would be constructed across the UPRR to the northwest corner of the TPP plant site.

8.3.1.3 Environmental Setting

The environmental setting of the TPP is the central San Joaquin Valley. Topographically, the valley is an expansive flatland comprising alluvial floodplains, river and creek channels, dried lakebed, marshes, sloughs, and various other riparian environments. The environmental setting is also characterized by uplands of low and gradual relief. During prehistoric times (i.e., Late Pleistocene and Early Holocene), wetlands covered more than 5,000 square kilometers of the San Joaquin Valley area (Moratto, 1984). The TPP plant site is approximately 176 feet above mean sea level (MSL) and is relatively flat with little topographic relief. The transmission line route spans rolling hills with elevations ranging from approximately 175 feet to 550 feet above MSL.

8.3.1.4 Prehistory

Archaeological investigations in the central San Joaquin Valley have concentrated in the areas near the San Joaquin River. In the 1920s, archaeologists Gifford and Schenck began studying sites around Kern and Tulare Lakes that had artifact assemblages characteristic of the Yokuts late-prehistoric phase. These included flexed burials, obsidian bifaces, pottery, steatite earspools, and serrated projectile points. Barr recorded Yokuts mounds and excavated sites along the northern portion of the San Joaquin River, in the Stockton area, between 1893 and 1901. A series of excavations in the Lodi vicinity by Barr and Dawson, during the 1920s and 1930s, helped establish a chronology of prehistoric cultural change in the valley (Moratto, 1984).

Excavations conducted in the San Joaquin Valley from the 1890s to present have contributed to an understanding of cultural change for Native Americans in the Central Valley.

Two archaeologists, Olsen and Payen, have defined a group of cultural complexes based on artifact assemblages for the Central Valley:

Positas Complex (ca. 3300–2600 B.C.): Characterized by millingstones, spire-lopped Olivella beads, small mortars, short pestles, and perforated cobbles. This is the basal deposit at some archaeological sites.

Pacheco Complex A (ca. 2600 B.C.–1600 B.C.): Characterized by foliate bifaces, rectangular abalone ornaments, and rectangular Olivella beads.

Pacheco Complex B (ca. 1600 B.C.–A.D. 300): Characterized by saddle, saucer, and split-drilled Olivella beads, abalone disk beads and ornaments, perforated canine teeth, bone awls, whistles and grass saws, large-stemmed and side-notched projectile points, and both millingstones and mortars and pestles.

Panoche Complex (ca. A.D. 1500–1850): Characterized by large circular structures, flexed burials (as well as cremations), millingstones, mortars, pestles, bone awls, saws, whistles, small side-notched arrow points, clamshell beads, abalone disk beads, as well as side-ground, lipped, and rough disk Olivella beads (Moratto, 1984).

Sites near Lodi yielded incised bird-bone tubes, baked clay bird effigy objects with decoration, abalone ornaments, and fish spears (Moratto, 1984). Excavations in the 1930s also uncovered a Yokuts burial ground in the town of Tracy (Tracy Area Genealogical Society, 2001).

8.3.1.5 Ethnography

The TPP study area is located within the boundaries of the Northern Valley Yokuts, the historical occupants of the central and northern San Joaquin Valley (Figure 8.3-3). "Yokuts" is a term applied to a large and diverse number of people inhabiting the San Joaquin Valley and Sierra Nevada foothills of central California. The Northern Valley Yokuts inhabited a 40- to 60-mile-wide area straddling the San Joaquin River, south of the Mokelumne River, east of the Diablo Range, and north of the sharp bend that the San Joaquin River takes to the northeast. The Southern Valley Yokuts inhabited the San Joaquin Valley south of the bend in

the river. Although they were divided geographically and by ecological resources, they had similar linguistic styles. For the Northern Valley Yokuts, the San Joaquin River and its main tributaries served as a lifeline to the valley, and their villages tended to congregate around these main water sources.

The Northern Valley Yokuts built their riverside villages on mounds along the water's edge to avoid having their living space flooded during the spring from heavy Sierra snow melts. Tribal villages were headed by a chief. The village populations averaged around 300 people. Family houses were round or oval, with a conically shaped pole frame, sunk into the ground and covered with tule mats. Each village also had a lodge for dances and other community functions, as well as a sweathouse (Heizer, 1978).

Historic accounts from an unnamed Spanish expedition in 1810 and 1811 recall that the Spaniards named one of the Yokuts' village Pescadero ("fisherman") after seeing the Indians catching fish. During the time of Mexican land grants, Rancho Pescadero north of Tracy was named for the Yokuts village (Hoover, 1932). Living beside rivers and streams provided plentiful river perch, Sacramento pike, salmon, and sturgeon. Hunting provided waterfowl such as geese and ducks as well as land animals such as antelope, elk, and brown bear although by all indications fish constituted a majority of the diet. The surrounding woodland, grasslands, and marshes provided acorns, tule root, and seeds.

The archaeological record gives an indication of how food was acquired and processed and what tools were used by the Northern Valley Yokuts. Bone harpoon tips used for fishing, stone sinkers for nets, chert projectile points for hunting, mortars and pestles, scrapers, knives, and bone awl tools indicate the technology used to procure and manufacture food. Marine shells, procured from coastal tribes, were used for necklaces and other adornments. Northern Valley Yokuts either buried the dead in a flexed position or cremated their remains. Marine shell beads sometimes accompanied the deceased.

Oral histories tell of degradable artifacts that have not survived the last 200 years. Tule reed rafts were used to navigate the waterways for fishing and fowling. The Yokuts also manufactured a range of intricate baskets for a variety of purposes, including storing, cooking,

eating, winnowing, hopper mortars, and the transport of food materials. Very little is known of the Northern Valley Yokuts' clothing, but drawings of their tattoos show that they served not only as a decoration but also as a form of identity.

Ethnographic information and oral histories of the Northern Valley Yokuts are scarce. However, by all early accounts the Yokuts traded with neighboring tribes and were fairly peaceful. Missionaries made forays into the interior valleys from 1800–1820 looking for potential mission sites (Beck, 1974). Initially, the Diablo Range served as a natural barrier against heavy recruitment by the coastal Spanish missions. However, by the early 19th century, Spanish and later Mexican missionaries began to explore the inner valleys in search of neophytes. The Yokuts became irritated with the intrusion, and soon began fighting back and stealing horses from rancheros and missions in retaliation for intrusion (Beck, 1974). Eventually, the Northern Valley Yokuts were decimated by missionization; usurpation of land by rancheros, 49ers, and farmers; and epidemics (malaria being the most devastating, in 1833). Today, there are only a few surviving Northern Valley Yokuts.

8.3.1.6 History

A well-traveled trail through the San Joaquin Valley called El Camino Viejo was used by the Northern Valley Yokut as well as by Spanish and Mexican vaqueros, gold miners, and farmers (Hoover, 1932). The trail passes though Corral Hollow (California Historical Landmark # 755), six miles southwest of modern-day Tracy (CERES, 2001). In 1850, Edward B. Carrell built his home on the site of a Native American village in Corral Hollow. Native American artifacts, including pestles, mortars, and projectile points, have been found in the area along an arroyo near the Delta-Medota Canal (Hoover, 1932)

The city of Carnegie (California Historical Landmark # 740) lies nine miles southwest of Tracy. Carnegie was built around the Carnegie Brick and Pottery Plant, Tesla Coal Mines, and the San Joaquin Railroad line. The Carnegie Plant operated from 1902 to 1912 and used clay excavated from the Tesla Coal Mines. The town, which included homes, a post office, saloons, and hotels, existed from 1895 to 1912, when the Carnegie Plant ceased operations (CERES, 2001).

The Central Pacific Railroad, which proved to be an important form of transportation in the valley, came over the Altamont Pass in 1869. It connected the Bay Area with Sacramento, and also connected the Bay Area to the Transcontinental Railroad at the San Joaquin River Bridge, three miles northwest of Tracy (California Historical Landmark # 780-7). The landmark was titled "First Transcontinental Railroad – Site of Completion of Pacific Railroad." The first train crossed the bridge on September 8, 1869 (CERES, 2001).

The town of Ellis began to develop at a coaling stop on the Central Pacific Railroad line and west of Corral Hollow Road. In 1878, two different Central Pacific lines intersected three miles east of Ellis. At that time, most of the wood buildings from Ellis were loaded onto wagons and moved to the intersection, giving birth to the town of Tracy. The Central Pacific construction engineer, J.L. Stewart, named the town in honor of Lathrop Josiah Tracy, a railroad official. Railroad engineers designed the city in a grid fashion, and soon stores, hotels, and saloons developed along Front Street (now Sixth Street). From the beginning, Tracy's economy was extremely dependent upon the railroad and the local farming community (Tracy Area Geneological Society, 2001).

The utility of the railroad lasted well through World War II, when Tracy developed buildings and warehouses to help transport and house defense materials and expanded Tracy's boundaries. In the 1950s, the railroad was switched from steam to diesel, resulting in the closure of the Southern Pacific Roundhouse and related shops. Local factories kept the economy alive in Tracy. Glass factories and food-processing companies such as Heinz, Laura Scudder, Leprino Cheese, and the Holly Sugar Factory helped sustain Tracy's population. Today, Tracy is still a hub of transportation, conveniently placed at the convergence of three interstate freeways (Interstate 580, Interstate 5, and Interstate 205).

8.3.2 Cultural Resources Inventory

8.3.2.1 Documentary Research

Prior to conducting the field survey of the TPP site, four record searches were performed at the Central California Information Center (CCIC) of the California Historic Resources Information System (CHRIS). The combined record searches encompassed the TPP

plant site, its associated linear facilities, and a 0.5-mile radius around them. Information was requested on archaeological sites and historic built environment resources. Information sources included the National Register of Historic Places, California Historic Landmarks, California Register of Historic Resources, and California Points of Historical Interest. The records searches, conducted on June 7, 2001 (RS #4249L), June 13, 2001 (RS #4253L), June 26, 2001 (RS #4266L), and July 7, 2001 (RS #4279L), indicated that 16 prior archaeological surveys had been conducted in the study area. Additionally, these searches indicated five previously recorded cultural resources within the 0.5-mile study area. There were no previously recorded sites within the project footprint.

This study inventory provided the basis for evaluating project impacts to cultural resources likely to be present in the project area. Review of the inventory results indicated that about one-third of the project area had previously undergone archaeological survey; thus, it was determined that a complete field inventory was needed. Wherever possible, a pedestrian survey was conducted.

Previous Cultural Resource Surveys within 0.5 Miles of the Study Area. Previously conducted studies that pertain to the area within 0.5 miles of the TPP are outlined in Table 8.3-2. Sixteen cultural resource studies on file with the CCIC have been conducted within the area of potential effect (APE) and/or a 0.5-mile study area around each proposed project component. Pedestrian archaeological surveys were conducted at all TPP components. Archaeological survey coverage by project component and field conditions is detailed in Table 8.3-3.

Previously Recorded Archaeological Sites within 0.5 Miles of the Study Area. Five archaeological sites (prehistoric, historic, and built environment structures) have been documented within the study area and are outlined in Table 8.3-4. The four sites located within the TPP survey corridors are described below in Section 8.3.2.5 and in the confidential technical report (Appendix C) to this Application for Certification (AFC).

8.3.2.2 Local Jurisdictions, Societies, and Museums

In addition to the cultural resource information obtained by the CCIC, an effort was made to locate other documentation regarding important cultural resources in the TPP area. Local jurisdictions and historical and archaeological societies were contacted to obtain lists, descriptions, and locations of cultural resources within one mile of the TPP area. The following contacts were made.

- San Joaquin County Planning Department
- Alameda County Planning Department
- City of Tracy Planning Department
- San Joaquin County Historical Society and Museum
- Tracy Historical Museum
- Hayward Historical Society

None of these agencies or organizations provided additional information regarding cultural resources in the vicinity of the TPP site. Correspondence with the agencies and organizations noted above is provided in the Confidential Technical Appendix C to this AFC.

8.3.2.3 Native American Consultation

Concurrent with the records searches at the CCIC and prior to the field survey, the California Native American Heritage Commission (NAHC) was contacted for a list of local Native American groups and/or individuals with knowledge of cultural resources within or near the study area (defined as a one-mile radius around the TPP site and its associated linear facilities). These consultations also sought to identify any sacred lands within the study area in the NAHC's Sacred Lands File. A record search of the file did not indicate the presence of Native American cultural resources in the immediate area of the TPP site.

Two letters describing the proposed TPP and its components and maps of the proposed site were sent to the one person identified by the NAHC. When a project component

was extended into Alameda County a third letter was sent to this individual and to 11 additional people identified by the NAHC. The letters inquired whether these individuals had any concerns regarding the project or wished to provide input regarding cultural resources in the project area. To date, no responses have been received. The log documenting this correspondence can be found in the confidential technical report (Appendix C). The project proponent is committed to forwarding to the CEC any responses received after submittal of this document.

8.3.2.4 Key Personnel Qualifications

The personnel who conducted and/or supervised the field survey and prepared the Cultural Resources Technical Report and this AFC section are:

- Brian Hatoff, M.A., R.P.A. (Principal Investigator for the project)
- Rachael Egherman, B.A. (URS Archaeologist)
- Heather Dudock, B.A. (URS Archaeologist)

Mr. Hatoff meets the professional standards of the Secretary of the Interior for this work (*Standards and Guidelines for Archeology and Historic Preservation*, National Park Service, 1983) and is professionally certified by the Register of Professional Archaeologists.

8.3.2.5 Field Survey Methodology and Coverage

Access from landowners was not obtained for a 0.4-mile linear segment of the transmission route. However, this segment had been subject to a previous survey, with negative results. In all cases, the subject lands were inspected visually.

Archaeology. Figure 8.3-4 illustrates the project components and the areas surveyed for cultural resources. Table 8.3-4 gives the specific coverage details and field conditions encountered at each project component. A crew of three archaeologists and field technicians conducted two field surveys, one on June 9, 2001 and another on July 11-12, 2001. A final survey was conducted by one archaeologist on July 18-19, 2001 to cover a small addition to the project and an area where access was granted after the initial surveys. The combined surveys covered the 40-acre proposed site plus a 200-foot buffer zone around it, in linear

pedestrian transects at 20-meter (65-foot) intervals. For the linear features, a 400-foot corridor (200 feet on either side of the centerline) was surveyed in linear pedestrian transects at 20-meter (65-foot) intervals.

Right of entry was not obtained for a 0.4-mile-long segment of the transmission line route between the California Aqueduct and the Delta-Mendota Canal (see Figure 8.3-4). However, a previous cultural resource survey of this land had been conducted by Morratto, et al. in 1990 (CCIC # 621). No cultural resources were recorded on that segment during the prior survey. This parcel of land has been an orchard since at least 1980. An intensive pedestrian cultural resource field survey would be completed prior to construction of the transmission line, once access is obtained.

Four historic linear features were crossed during the field survey. Segments of the Delta-Mendota Canal, California Aqueduct, and the Western Pacific Railroad (WPRR) located outside the TPP survey corridor have previously been recorded. The UPRR has a previously recorded segment within the TPP survey corridor. Three new historic linear features were found and recorded during field reconnaissance: two telegraph lines and a historic fence. Each of these seven features lies within the survey corridor, but outside the area of potential effect (APE) of the project. The significance and relationship of these historic features to the TPP APE are described below. No prehistoric cultural resources were detected within the survey corridor during either field survey.

Built Environment. All built environment structures on or adjacent to the TPP site or components were assessed during field reconnaissance. The few ranch houses located in the transmission line corridor do not predate 1980. The Owens-Brockway glass container plant, the Nutting-Rice warehouse, and the Tracy Biomass plant located north of the site were all built within the last 35 years. There are no structures in the TPP survey corridor that appear to be 50 years old or older. It is clear from this reconnaissance that no built environment structures in the project vicinity exhibit characteristics that would make them eligible to the National Register of Historic Places or the California Register of Historic Resources.

Survey Results. Except for the small segment of land where access was not obtained (described above), all project components were surveyed, and ground visibility was good. No prehistoric cultural resources were located during the survey. Records of four previously recorded historic features were updated and three new historic resources were recorded during the survey. No historic built environment resources were located during the survey.

Newly Recorded and Updated Cultural Resources.

Fence Line (TPP-1)

A section of historic fence was located and recorded during the TPP survey (TPP-1). This derelict fence is partially fallen to the ground and not entirely connected between posts. It is constructed with 4-inch by 4-inch milled lumber posts that have both square and wire nails embedded in them. Where connected, three strands of barbed wire span the posts. This fence is approximately 1,000 feet long.

The square nails are Type B cut nails, circa 1820–1900. Type B cut nails were machine made by flipping an iron bar over after each stroke. With the cutter set at an angle, every nail was chopped to a taper. The barbed wire used for this fence is known as Glidden Square Strand, patented by Joseph F. Glidden in February 1876. This type of barbed wire has a single strand of square wire with a four-point coil barb. This type of barbed wire is commonly used in modern fences.

The original setting of this fence has been altered due to the adjacent Owens-Brockway glass container plant, the Nutting-Rice warehouse, and the Tracy Biomass facility, which were built in the last 35 years. Dirt and paved roads leading to these facilities have also altered the original setting. In addition, the original design elements of the fence have been altered by repair and maintenance with modern materials, as well as by natural deterioration. Thus, this fence lacks the integrity of setting, design, materials, feeling, and association that would

make it eligible for inclusion on the National Register of Historic Places to the NRHP or California Register of Historic Places.

Although this fence is located within the survey corridor of the TPP, it is outside the footprint of any area subject to disturbance from construction of the TPP or associated components and is therefore considered to be outside the APE. Furthermore, the construction of the TPP would not significantly alter the setting of the fence, which already lacks integrity due to the presence of other modern facilities nearby.

Formal recordation forms will be filed with the CCIC to document this fence. These record forms are included in Confidential Technical Appendix C to this AFC.

Telegraph Poles along the Union (Southern) Pacific Railroad (TPP-2)

A section of unused telegraph line, which runs parallel along the south side of the UPRR, was located and recorded during the TPP survey. This telegraph line is associated with the railroad, which was previously assessed by JRP Historical Consulting Services to be ineligible for listing on the National Register. The telegraph line is in poor condition, with only unconnected poles remaining. Of the 25 telegraph poles recorded, only 10 remain standing. The majority of the poles have fallen to the ground and are deteriorating. Makers' marks and stamps on the poles are mostly weathered away, and many of the glass insulators are no longer attached to the crossbars. The insulator colors vary from pole to pole, with clear, aqua, and black and green glass used. Insulators found on the ground were embossed "HEMINGRAY-19, MADE IN U.S.A."

The "MADE IN U.S.A." first appeared on Hemingray insulators in 1919, following an international agreement to mark any item for export with the country of origin. In 1936, Hemingray produced true clear insulators. A true clear glass was needed for the production of glass building blocks, and this glass was used for insulator production as well. In 1952, the Kimble Glass Company took over

the Hemingray insulator division and produced several new power insulator styles embossed "KIMBLE." In 1967, the Hemingray plant shut down and insulator production ceased. Thus, the remaining insulators were manufactured between 1919 and 1952.

The proposed access road would cross this telegraph line, TPP-2, in the vicinity of the plant site and would pass between two poles. The poles are no longer connected to each other, and there is a gap of approximately 360 feet between them. Because the construction right-of-way for this access road would be 175 feet wide, and no activity would take place outside this right-of-way, the telegraph poles would be avoided. Project monitoring is recommended in this area to ensure avoidance of the telegraph poles during construction of this crossing. Because the line already lacks integrity and would be completely avoided by the TPP project, constructing the access road to the plant site would have no effect on these telegraph poles.

Formal recordation forms will be filed with the CCIC to document the telegraph line segment, TPP-2. These record forms are included in Confidential Technical Appendix C to this AFC.

Telegraph Line along the Western Pacific Railroad (TPP-3)

Two sections of a historic telegraph line, which runs parallel along the north side of the WPRR, were located and recorded during the TPP survey. This telegraph line is associated with the railroad, which was previously evaluated by JRP Historical Consulting Services as ineligible for listing on the National Register. The telegraph line is in good condition; the poles are standing, connected, and still in use. Nine telegraph poles were recorded in the TPP survey corridor: four along one section and five along another section. Five of these poles have previously been replaced; the original pole was cut off at the base, and a stump remains in the ground next to the new pole. Maker marks and stamps still exist on some poles, although some are difficult to decipher. Most of the glass

insulators are attached to the single crossbar, but a few were found lying on the ground near the poles. The insulator colors varied from pole to pole, with clear, aqua, and brown glass used. An aqua insulator found on the ground was embossed "HEMINGRAY." This embossing first appeared on insulators in the 1890s.

The proposed transmission line would cross the telegraph line, TPP-3, at two locations. At these two points there are three modern transmission lines overhead. The proposed new line would parallel these existing lines, and its towers would be placed on either side of the telegraph line along with the existing towers. The TPP transmission line would avoid direct impacts to the telegraph line by spanning it. Furthermore, the construction of the TPP transmission line would be consistent with the setting of the telegraph line at these locations, due to the three existing transmission lines overhead. Therefore, the TPP transmission line would not change the setting in any substantive way and thus would not have a significant indirect effect on the telegraph line.

Formal recordation forms will be filed with the CCIC to document this telegraph line segment, TPP-3. These record forms are included in Confidential Technical Appendix C to this AFC.

Delta-Mendota Canal (P-39-000089)

In 1994, JRP Historical Consulting Services recorded and evaluated two points along this historic feature (Hatoff, 1995). These recorded points are outside the TPP survey corridor, but are just 1.25 miles north and 1.25 miles south of the location where the TPP transmission line would cross the canal.

From the Tracy Pumping Plant near Tracy, the Delta-Mendota Canal extends southeast for 113 miles to a point about 30 miles west of Fresno. The Delta-Mendota Canal was designed during World War II, but construction did not begin until 1946. The canal was built by various private contractors between the fall of 1946 and the spring of 1952. The purpose of the canal was to transfer excess

water from the Sacramento River for supplemental irrigation of approximately 1,000,000 acres of agricultural land in the San Joaquin River valley (Hatoff, 1995).

JRP evaluated the Delta-Mendota Canal as appearing to be eligible for listing on the National Register of Historic Places under Criteria A and C, at a state level of significance, for the period 1946–1952, based on the exceptional significance of the canal as a key component in the original Central Valley Project (CVP). First planned in the 1930s, the CVP is one of the great achievements in hydraulic engineering, facilitating water transfers on a scale seldom envisioned prior to its completion. As it exists today, the CVP consists of dozens of dams, canals, pumps, and other facilities scattered throughout the state.

The Delta-Mendota Canal retains integrity of design, materials, and workmanship within the areas surveyed by JRP. The overall integrity of the canal system was not addressed by JRP's evaluation. However, JRP concluded that the canal meets the National Register criteria as an exceptionally significant property and retains the integrity of its original construction within the recorded points. URS concurs with JRP's recommendation that the canal meets the criteria for listing on the National Register.

The point where the TPP transmission line would cross the Delta-Mendota Canal also appears to retain integrity. However, the TPP transmission line would be constructed adjacent to two modern transmission lines. The new line would parallel these existing lines, and its towers would be placed on either side of the canal next to existing towers. The TPP transmission line would avoid direct impacts to the canal. Furthermore, the TPP transmission line would be consistent with the current setting of the canal at this location, due to the two existing transmission lines overhead. Therefore, the TPP transmission line would not change the setting in any substantive way and thus would not have an indirect effects on the canal.

An update to JRP's record form will be filed with the CCIC to document the point along the canal that was surveyed for the TPP. This updated record form along with the original is included in Confidential Technical Appendix C to this AFC.

California Aqueduct (P-39-000090)

In 1994, JRP Historical Consulting Services recorded and evaluated two points along this historic feature (Hatoff 1995). These recorded points are outside the TPP survey corridor, but are just 1.25 miles to the north and south of the location where the TPP transmission line would cross the aqueduct.

The California Aqueduct alignment runs from the Delta Pumping Plant (two miles from the CVP's Tracy Pumping Plant) south along the western edge of the San Joaquin Valley. After climbing over the Tehachapis, the 444-mile-long conduit ends at Perris Reservoir in Riverside County.

The California Aqueduct is part of the State Water Project (SWP) system. The first phase of work on the SWP, including construction of the California Aqueduct, took place from 1961 to 1972. Various private contractors to the Department of Water Resources (DWR) built the North San Joaquin Division of the aqueduct (in which lie both of JRP's recordation points and the TPP project area) between 1965 and the end of 1967.

The California Aqueduct is one of the most ambitious public works projects undertaken by the State of California, and would seem an obvious candidate for National Register listing, on the basis of its bold engineering solutions and its role in the state's economy and society. However, it is difficult to establish a date of construction for the California Aqueduct. The main Aqueduct—the canal extending from the Delta to Southern California—was built in stages and was partially operable by 1968. It was not fully operational, however, until Oroville Dam was completed in the early 1970s. The system, then, began working between 30 and 35 years ago.

JRP evaluated the California Aqueduct as appearing ineligible for listing on the National Register of Historic Places. Although it is a conduit of considerable importance to the economy and society of California, the aqueduct is far less than 50 years old. Applying National Register guidelines to this property, the California Aqueduct is too recent to warrant National Register listing. The property should nonetheless be regarded as a sensitive resource, recognizing that in the not too distant future, the aqueduct will meet the criteria. URS concurs with JRP's recommendation that the canal is ineligible at this time for listing on the National Register.

The TPP transmission line would cross the aqueduct, P-39-000090. Where the TPP transmission line would be constructed, two modern transmission lines already cross the aqueduct. The new line would parallel these existing lines, and its towers would be placed on either side of the aqueduct next to existing towers. The TPP transmission line would avoid direct impacts to the aqueduct. Furthermore, the TPP transmission line would be consistent with the setting of the aqueduct at this location, due to the presence of two existing transmission lines overhead. Therefore, the TPP transmission line would not change the setting in any substantive way and thus would not have indirect effects on the aqueduct.

An update to JRP's record form will be filed with the CCIC to document the point along the aqueduct that was surveyed for the TPP. This updated record form along with the original is included in Confidential Technical Appendix C to this AFC.

Union (Southern) Pacific Railroad (CA-SJO-250H)

In 1994, JRP Historical Consulting Services recorded and evaluated this historic feature (Hatoff, 1995). JRP documented numerous segments of the railroad, including one segment that lies within the survey corridor of the TPP project. This segment included a segment of the mainline and two spurs. The evaluation stated that, although this railroad played an important role in the history of

transportation in California and the western United States and to the development of the San Joaquin Valley and Bay Area, the recorded segments did not have sufficient integrity of materials, setting, design, workmanship, feeling, and association to be eligible to the National Register.

As with most pieces of heavy equipment, parts wear out or break over time and are replaced. In the case of the recorded segments, the major resource related to the period of significance (1863–1869) is the right-of-way itself; all other resources—rails, tie plates, ties, ballasting, signals, etc.—have been replaced and exhibit either dates or characteristics that place their installation well after that period of significance.

JRP's 1994 evaluation of the specific segment within the TPP survey corridor indicated that the mainline was uniform in appearance; the tracks were not welded, and the line had been recently reballasted. The mainline rails at this location dated from 1937–1940, and several ties had date spikes from 1932 through 1938; tie stamps indicate that the ties were at least partially relaid after 1969. The spur line was constructed later than the original line and thus of lower historical significance. Therefore, this segment of the railroad was determined to be not eligible for listing on the National Register, owing to an overall lack of integrity to the period of significance, including setting, design, materials, workmanship, feeling, and association. Based on the survey conducted for the TPP and JRP's extensive historical evaluation, URS concurs with this recommendation of ineligibility for listing on the National Register.

The proposed access road to the TPP plant site would cross the railroad line, CA-SJO-250H. This segment of railroad would be avoided by the construction of the TPP, except where access to the plant site is gained by crossing the railroad tracks. The proposed surface crossing would be consistent with the current setting and integrity of the railroad in this location and with other rail crossings in the vicinity. Modern buildings are present just to the north of the railroad. As described above, the mainline already lacks integrity, both in physical

composition and setting. Therefore, the railroad crossing from the access road to the plant site would have no effect on the integrity of this railroad.

An update to JRP's record form will be filed with the CCIC to document the point along the railroad that was surveyed for the TPP. This updated record form along with the JRP original is included in Confidential Technical Appendix C to this AFC.

Western Pacific Railroad (P-39-000098)

In 1994, JRP Historical Consulting Services evaluated this historic feature and recorded numerous segments of the railroad within close proximity to the TPP, but outside the TPP survey corridor. The evaluation stated that the recorded segments did not appear to be eligible for listing on the National Register of Historic Places.

The WPRR was built in the early 20th century. While the line made a marginal impact on the growth of California, it was not a major factor in the rail transportation network until 1980, when the WPRR was acquired by the Union Pacific Railroad.

Construction of the WPRR, particularly its ascent of the Sierra Nevada through the Feather River Canyon, required daring engineering features, including dozens of large bridges and tunnels. The elements of the WPRR that could make it eligible for the National Register are those directly associated with the building of the line and/or that exhibit exceptional engineering. The particular points encountered during the JRP survey, however, did not reflect either the early period of development or the characteristics of significance in railroad engineering. The recorded point closest to the TPP area sits on a berm, with heavy-duty welded rails, new ballast, and recently laid ties. The rails have dates of 1948. The line has the appearance of heavy and regular use. This is also true of the two points in the TPP survey area where the WPRR is crossed.

In summary, the points recorded by JRP (which are in close proximity to the TPP area and consistent in level of integrity) do not appear to meet the eligibility criteria for listing on the National Register. The mainline appears to have been rebuilt in recent decades, with most rails from the 1980s. Even those sites with rails from the 1960s were probably rebuilt since that time, with old but still-usable rails. The mainline lacks the required integrity of setting, design, materials, workmanship, feeling, and association (Hatoff, 1995). Based on the survey conducted for the TPP and JRP's extensive historical evaluation, URS concurs with this recommendation of ineligibility for listing on the National Register.

The TPP transmission line would cross the WPRR, P-39-000098, at a point where three modern transmission lines already cross the railroad. The new line would parallel these existing lines, and its towers would be placed on either side of the railroad next to existing towers. By spanning the railroad, the TPP transmission line would avoid direct impacts to the railroad. Moreover, the TPP transmission line would be consistent with the setting of the railroad at the two crossing locations, due to the three existing transmission lines overhead. Therefore, the TPP transmission line would not change the setting in any substantive way and thus would not have an indirect effect on the setting of the railroad.

An update to JRP's record form will be filed with the CCIC to document the two points along the railroad that were surveyed for the TPP. This updated record form along with the original is included in Confidential Technical Appendix C to this AFC.

8.3.2.6 Sensitivity

The sensitivity of the TPP is low for prehistoric sites potentially eligible for inclusion on the National Register of Historic Places. No prehistoric resources were located during the survey, and except for a small cache of milling implements, no other prehistoric resources are known to exist within 0.5 miles of the TPP plant site or its linear components.

Although a number of historical resources exist near the proposed project corridor, they would not be affected by the construction of the TPP. No impacts to cultural resources are anticipated.

8.3.3 Environmental Consequences and Direct, Indirect, and Cumulative Impacts

No impacts to cultural resources are anticipated. However, unidentified buried cultural resources could potentially be present. No significant impacts to cultural resources are anticipated as a result of the TPP; thus, no direct, indirect, or cumulative effects on the cultural resources of the area are anticipated.

8.3.4 Mitigation Measures

No significant or potentially significant cultural resources are known to exist within the study area. The historical UPRR and associated telegraph line that would be crossed by the access road to the plant site lack integrity for listing on the National Register. It is recommended that an archaeological monitor be present to inspect the construction of the site access road that crosses the UPRR to ensure avoidance of the telegraph poles along the railroad. The access road right-of-way should be kept between the two telegraph poles in this location. Once the crossing route is ensured, monitoring may cease. No additional mitigation measures are required in this location, unless previously undiscovered cultural resources are detected during construction.

It is possible that previously unknown cultural resources may be discovered in the course of the construction of the TPP. Construction personnel would be instructed to halt their activities upon the discovery of such materials. In the event that previously unknown cultural resources are discovered, a qualified archaeologist would evaluate the find for significance and, if necessary, recommend further mitigation measures.

The TPP will document and report to the CEC the discovery during construction of any previously unknown significant cultural resources and consult with CEC staff regarding the management of any such resources, including the design and implementation of appropriate mitigation measures if the resource cannot be avoided.

If human remains are encountered during construction activities, work will stop immediately within 100 feet (30 meters) of the discovery, and the provisions of California Health and Safety Code Section 70500.5, Public Resources Code Section 5097.98, and other applicable sections shall apply.

It is anticipated that the construction of the TPP would not result in any unavoidable direct or indirect impacts to significant cultural resources. Consequently, the TPP would not contribute to cumulative adverse direct or indirect impacts to cultural resources in the study area.

8.3.5 Laws, Ordinances, Regulations, and Standards

A discussion of the applicable laws, ordinances, regulations, and standards (LORS) follows (see Table 8.3-5). Federal regulations, which generally only apply to federal undertakings, are included here for the sake of completeness.

8.3.5.1 Federal Authorities and Administering Agencies

National Historic Preservation Act of 1966 (NHPA), as amended (16 United States Code [USC] § 470 et seq.; NHPA Section 106; 36 Code of Federal Regulations [CFR] 800): This authority includes provisions for protection of significant archaeological and historical resources. Procedures for dealing with previously unsuspected cultural resources discovered during construction are identified in 36 CFR 800 (for implementing NHPA § 106 processes). The administering agency for this authority is the State Historic Preservation Officer (SHPO) and the federal lead agency. Federal involvement has not yet been identified for the TPP; a lead federal agency would be identified at the time the TPP is determined to be a federal undertaking.

National Environmental Policy Act of 1968 (NEPA), as amended (USC §§ 4321-4327; 40 CFR 1502.25): NEPA requires analysis of potential environmental impacts to cultural resources. Federal involvement has not yet been identified for the TPP; a lead federal agency would be identified at the time the project is determined to be a federal undertaking.

Federal Antiquities Act of 1906 (16 USC 432, 433): This act serves as the basis for legislation regarding the preservation of cultural properties on federal lands, provides for a permit process for scholarly use of properties, and stipulates misdemeanor-level penalties for theft, vandalism, or destruction of cultural resources. This act is not applicable to the TPP, because there are no federal lands within the TPP area.

Executive Order 11593: Directs federal agencies to inventory cultural properties under their jurisdiction, to nominate properties to the National Register of Historic Places, and to use due caution until the inventory and nomination processes are completed. This order is not applicable to the TPP, because there are no federal lands within the TPP area.

Archaeological Resources Protection Act of 1979 (42 USC 470aa et seq.): This act provides felony-level penalties for removal or damage to archaeological resources that are more than 100 years old. This act is not applicable to the TPP, because there are no federal lands within the TPP area.

Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001): This act establishes the rights of Indian tribes and Native Hawaiians to claim ownership of certain cultural items held or controlled by federal agencies. This act is not applicable to the TPP, because there are no federal lands within the TPP area.

Archaeological and Historic Preservation Act of 1976 (16 USC 469): This act provides for the preservation of historical and archaeological data that might otherwise be lost as the result of a federal construction project or a federally licensed or assisted project. Federal involvement has not yet been identified for the TPP; a lead federal agency would be identified at the time the project is determined to be a federal undertaking.

Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (September 29, 1983): These guidelines are nonregulatory standards for the gathering and treatment of data related to cultural resources. The administering agency for the above authority is the Secretary of the Interior and the lead federal agency, which would be identified at the time the TPP is determined to be a federal undertaking.

Prevention of Significant Deterioration Permit (PSD): Provided when the project is a federal undertaking and requires compliance with Section 106 of the NHPA. Federal involvement has not been identified.

American Indian Religious Freedom Act of 1979 (42 USC 1996): It is the policy of the United States to protect and preserve the right of American Indians (and other indigenous groups) to express and exercise their traditional religions, including access to religious sites. Federal involvement has not yet been identified for the TPP; a lead federal agency would be identified at the time the project is determined to be a federal undertaking.

8.3.5.2 State Authorities and Administering Agencies

The California Environmental Quality Act (CEQA) Section 15064.5; California Public Resources Code Sections 5024, 5024.5, and 21083.2; Title 14, CCR Section 15126: CEQA addresses the treatment of cultural resources that could be affected by the TPP, the importance of these resources, the potential project impacts to important cultural resources, and the development of a plan to avoid or mitigate any adverse effects to these resources. Formal findings of importance (for state purposes, eligibility for the California Register of Historic Resources) and project effects are made by the lead state regulatory agency or, for federal undertakings, in consultation with the federal lead agency, the SHPO, and the Advisory Council on Historic Preservation. The administering agency for this authority is the CEC.

California Public Resources Code Sections 25523(a), 25527; 20 CCR Sections 1752, 1752.5, 2300–2309, and Chapter 2, Subchapter 5, Article 1, Appendix B, Part (i): This authority provides that the CEC consider protection of environmental quality in its decision on an AFC. This AFC includes a detailed description and discussion of potential environmental impacts in the project area. In its evaluation, the CEC is also required to give special consideration to the need for protection of unique historical, archaeological, and cultural sites. The administering agency for this authority is the CEC.

California Health and Safety Code Section 7050.5: This authority provides for County Coroner identification of human remains and, if determined to be of Native American

origin, coordination with the California Native American Heritage Commission (NAHC). The administering agency for this authority is the San Joaquin County or Alameda County Sheriff-Coroner (Medical Examiner), depending on location.

California Public Resources Code Section 5024.1: This authority provides for the establishment of the California Register of Historic Resources and describes the procedures for nominating sites to the register. The administering agency for this authority is the State Historical Resources Commission.

California Public Resources Code Sections 5097.94 and 5097.98: This authority provides for mediation of disputes related to the recovery and treatment of Native American remains and the identification of Most Likely Descendants. The administering agency for this authority is the NAHC.

California Public Resources Code Section 5097.5: This authority makes it a misdemeanor to remove, without authorization, archaeological resources or paleontological remains from sites located on public lands. Depending on the location, the administering agency for this authority is the San Joaquin County Planning Department or the Alameda County Planning Department.

8.3.5.3 Local Authorities and Administering Agencies

San Joaquin County General Plan. Volume I, Sections G and H, of the General Plan describe efforts to protect heritage resources in San Joaquin County. The objective is to protect the county's valuable architectural, historical, archaeological, and cultural resources by promoting identification and inventory, public awareness, reuse, educational programs, funding, and restoration. Section G details local, state, and federal historic preservation programs, and provides a list of local historic places listed in the National Register. Section G also lists local historic points of interest and historic landmarks in San Joaquin County. San Joaquin County also follows the provisions of CEQA regarding cultural resources. The administering agency for this authority is San Joaquin County.

Alameda County. The County follows the provisions of CEQA regarding cultural resources. The administrative agency for this authority is Alameda County.

City of Tracy. The City of Tracy follows the provisions of CEQA regarding cultural resources. The administrative agency for this authority is the City of Tracy.

8.3.5.4 Industry Codes and Standards

No industry laws, ordinances, regulations, or standards are applicable.

8.3.6 Involved Agencies and Agency Contacts

Agencies with jurisdiction to issue applicable permits and/or enforce LORS related to cultural resources are shown in Table 8.3-6.

8.3.7 Permits Required and Schedule

No permits pertaining to cultural resources are required.

8.3.8 References

Beck, Warren and Ynez Haase. 1974. *Historical Atlas of California.* University of Oklahoma Press. Norman and London.

California Energy Commission, 1992. *Instructions to the California Energy Commission Staff for Review of and Information Requirements for an Application for Certification.* Sacramento.

California Energy Commission, 1997. *Rules of Practice and Procedure and Power Plant Site Certification Regulations*. Sacramento.

California Environmental Resources Evaluation System (CERES). 2001. *San Joaquin County Historical Landmarks*. California Resources Agency.

Hatoff et al. 1995. *Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project.* Oakland, California.

Heizer, Robert, ed. 1978. *Handbook of North American Indians: Volume 8.* Smithsonian Institute, Washington D.C.

Hoover, M. et al. 1932. *Historic Spots in California.* Stanford University Press, Stanford, California.

Moratto, M., 1984. *California Archaeology*. Florida: Academic Press.

Tracy Area Genealogical Society. 2001. *Tracy: A Gateway City.* http://www.rootsweb.com/~catags/tracyhist.html

TABLES

Table 8.3-1
Project Components

Component	Description
Plant Site	A nine-acre site within the 40-acre parcel, in an unincorporated area of Tracy.
Construction Staging Area	A 5.2-acre area within the 40-acre parcel and along the 100-foot-wide easement along the transmission line corridor.
Linear Components	
Water Supply Line	A 1,470-foot-long water supply line.
Transmission Line Route	A five-mile-mile-long transmission line spanning agricultural land and grasslands.
Access Road Easement	A 0.8-mile-long easement spanning a dirt road and crossing the Union Pacific Railroad into the plant site.

Table 8.3-2
Previous Cultural Resource Studies within 0.5 Miles of the Study Area

Reference/Survey Number	Reference Summary
Atwell, et al. (1995) [CCIC #2753b]	Archaeological Investigations PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California. Volume IV: Synthesis of Findings. No cultural resources were recorded within the proposed TPP area.
Baker and Smith (1989) [CCIC #716]	An Archaeological Reconnaissance of a Portion of the 115-kV Tesla-Tracy Transmission Line, San Joaquin County, California. No cultural resources were recorded within the proposed TPP area.
Canaday, Ostrogorsky, and Hess (1992) [CCIC #1846]	Archaeological Survey of Right-of-Way Corridor and Extra Work Spaces Constructed Spread 5B, California. PGT-PG&E Pipeline Expansion Project. No cultural resources were recorded within the proposed TPP area.
Chavez (1995) [CCIC #2736]	Historic Property Survey Report for the improvement of a portion of I-205, an existing transportation facility in southwestern San Joaquin County and northeastern Alameda County. No cultural resources were recorded within the proposed TPP area.
Foster (1995) [CCIC #2646]	A Cultural Resource Survey and Assessment of the South Schulte Village Property, Tracy, California. One cultural resource (CA-SJO-000262) consisting of three prehistoric milling implements was recorded approximately 0.5 miles from the proposed TPP area.
Foster (1996) [CCIC #2857]	An Archaeological and Historical Resource Investigation of the Proposed Tracy Hills Project, Tracy, California. No cultural resources were recorded within the proposed TPP area.
Foster (1999) [CCIC #3559]	A Cultural Resource Survey and Assessment of the Tracy Learning Center Property, Tracy, California. No cultural resources were recorded within the proposed TPP area.
Foster and Foster (1994) [CCIC #2293]	An Archaeological and Historical Resource Investigation of the Proposed Corral Hollow West Project: A Planned Unit Development Near Tracy, San Joaquin County, California. No cultural resources were recorded within the proposed TPP area.
Hatoff, et al. (1995) [CCIC #2759]	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project. Several segments of linear features that extend into the proposed TPP area were recorded in this survey.

Table 8.3-2 (Continued)
Previous Cultural Resource Studies within 0.5 Miles of the Study Area

Reference/Survey Number	Reference Summary
Holman and Associates (1989) [CCIC #745]	An Archaeological Field Reconnaissance of the Gateway Business Park, San Joaquin County, California. No cultural resources were recorded within the proposed TPP area.
Jensen (1996) [CCIC #2930]	An Archaeological Inventory Survey. Tracy to Fresno Longhaul Fiberoptics Data Transmission Line, Portions of Fresno, Madera, Merced, Stanislaus, and San Joaquin Counties, California. No cultural resources were recorded within the proposed TPP area.
Moratto, et al. (1990) [CCIC #621]	Cultural Resources Assessment Report PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California. Phase 1: Survey, Inventory, and Preliminary Evaluation of Cultural Resources. No cultural resources were recorded within the proposed TPP area.
Moratto, et al. (1994) [CCIC #2753a]	Archaeological Investigations PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California. Volume I: Project Overview, Research Design, and Archaeological Inventory. No cultural resources were recorded within the proposed TPP area.
Napton (1989) [CCIC #790]	A Cultural Resource Investigation of 1,250 Acres Proposed for Development in Tracy, San Joaquin County, California. No cultural resources were recorded within the proposed TPP project area.
Napton (1990) [CCIC #798]	A Cultural Resources Investigation of 95 Acres in Tracy, San Joaquin County, California. No cultural resources were recorded within the proposed TPP area.
Yelding-Sloan and Busby (1992) [CCIC #1845]	Cultural Resources Assessment for Tracy I-205 and I-580 Patterson Pass Road Interchange Modification Project. No cultural resources were recorded within the proposed TPP area.

Table 8.3-3
Archaeological Survey Coverage by Project Component and Field Conditions

Project Component	Field Conditions	Comments
Plant Site	95 percent ground visibility, area spans agricultural lands affording good ground visibility.	Pedestrian field inspection, good ground visibility.
Water Supply Line	95 percent ground visibility, area spans a dirt farm road affording good ground visibility.	Pedestrian field inspection, good ground visibility.
Transmission Line	95 percent ground visibility, area spans open grasslands and some agricultural lands.	Pedestrian field inspection, good ground visibility.
Access Road Easement	95 percent ground visibility, area spans a dirt road, and crosses the UPRR right-of-way.	Pedestrian field inspection, good ground visibility.

Table 8.3-4
Previously Recorded Archaeological Sites Within 0.5 Miles of the Study Area

Survey No.	Site No.	USGS 7.5″ Quadrangle	Site Type/ Description	Primary Reference	Type of Investigation	Status
[CCIC #2646]	CA-SJO-000262	Tracy, 1954 (photorevised 1981)	Prehistoric – Milling implements (isolate)	Foster, 1995	Survey	7- Not Evaluated
[CCIC #2759]	CA-SJO-000250H	Tracy, 1954 (photorevised 1981)	Historic – Segment of the Southern Pacific Railroad line	Hatoff, 1995	Survey	7- Not Evaluated
[CCIC #2759]	*P-39-000089	Tracy, 1954 (photorevised 1981)	Historic – Portion of the Delta-Mendota Canal	Hatoff, 1995	Survey	7- Not Evaluated
[CCIC #2759]	*P-39-000090	Tracy, 1954 (photorevised 1981)	Historic – Portion of the California Aqueduct	Hatoff, 1995	Survey	7- Not Evaluated
[CCIC #2759]	*P-39-000098	Tracy, 1954 (photorevised 1981) Lathrop, 1952 (photorevised 1987) Florin, 1968 (photorevised 1980)	Historic – Segments of the Western Pacific Railroad	Hatoff, 1995	Survey	7- Not Evaluated

*Previously recorded segments of linear features that extend into the TPP survey area.

Table 8.3-5
Summary Of LORS And Compliance

Reference found in the AFC Section	Jurisdiction	Authority	Administering Agency	Requirements/Compliance
Cultural: 8.3.5.1	Federal †	NHPA, as amended; 16 USC § 470 et. seq.; Section 106; 36 CFR § 60.4 and 800.	SHPO/Lead Federal Agency †	Formal findings by the lead federal agency for cultural resources in consultation with the SHPO and the Advisory Council on Historic Preservation. Implement procedures for dealing with cultural resources discovered during construction.
Cultural: 8.3.5.1	Federal †	NEPA; 42 USC §§ 4321 - 4327; 40 CFR § 1502.25.	Lead Federal Agency †	Analysis of potential environmental impacts on federal lands.
Cultural: 8.3.5.1	Federal † *	Federal Antiquities Act of 1906: 16 USC §§ 432, 433	Lead Federal Agency †	Basic legislation for preservation of cultural properties on federal lands.
Cultural: 8.3.5.1	Federal † *	Executive Order 11593	Lead Federal Agency †	Directs federal agencies to inventory and nominate properties to the NRHP and protect cultural resources
Cultural: 8.3.5.1	Federal † *	Archaeological Resources Protection Act of 1979 (16 USC § 470a et seq.).	Secretary of the Interior and Lead Federal Agency †	Provides for felony-level penalties for destruction, damage or removal of cultural resources on federal lands.
Cultural: 8.3.5.1	Federal † *	Native American Graves Protection and Repatriation Act of 1990 (25 USC § 3001).	Lead Federal Agency †	Establishes mechanism for right of Indian tribes to claim ownership of human remains and certain cultural items.
Cultural: 8.3.5.1	Federal †	Archaeological and Historic Preservation Act of 1976 (16 USC § 469)	Secretary of the Interior and Lead Federal Agency †	Provides for coordination with the Secretary when a federally licensed undertaking may cause irreparable damage to significant cultural resources.

Table 8.3-5 (Continued)
Summary Of LORS And Compliance

Reference found in the AFC Section	Jurisdiction	Authority	Administering Agency	Requirements/Compliance
Cultural: 8.3.5.1	Federal †	Secretary of the Interior's Standards and Guidelines, September 29, 1983.	Secretary of the Interior and Lead Federal Agency †	Establishes standards for the gathering and treatment of data related to cultural resources.
Cultural: 8.3.5.1	Federal †	Prevention of Significant Deterioration (PSD) permit.	U.S. Fish and Wildlife Service † (via delegation to South Coast Air Quality Management District) †	Provided when issuance of the PSD permit is a "federal undertaking" and requires compliance with Section 106 of the NHPA.
Cultural: 8.3.5.1	Federal †	American Indian Religious Freedom Act of 1979 (42 USC 1996)	Lead Federal Agency †	Gives American Indians the right to express and exercise their traditional religions, including access to religious sites.
Cultural: 8.3.5.2	State	CEQA § 15064.5; PRC §§ 5024, 5024.5, and 21083.2; Title 14, CCR § 15126.4.	CEC	Formal findings by the lead state agency regarding project-related effects to important cultural resources.
Cultural: 8.3.5.2	State	PRC §§ 25523(A), 25527; 20 CCR §§ 1752, 1752.5, 2300–2309, and Chapter 2, Subchapter 5, Article 1, Appendix B, Part (i).	CEC	Special consideration of unique historical, archaeological, and cultural sites.

Table 8.3-5 (Continued)
Summary Of LORS And Compliance

Reference found in the AFC Section	Jurisdiction	Authority	Administering Agency	Requirements/Compliance
Cultural: 8.3.5.2	State	California Health & Safety Code § 7050.5.	San Joaquin County Alameda County	Determination of origin of human remains and coordination with NAHC.
Cultural: 8.3.5.2	State	PRC § 5024.1	State Historical Resources Commission	Provides for the establishment of the California Register of Historic Resources and procedures for nominating sites to the Register.
Cultural: 8.3.5.2	State	PRC § 5097.94 and 5097.98.21	NAHC	Provides for mediation of disputes related to recovery and treatment of Native American remains and identification of Most Likely Descendants.
Cultural: 8.3.5.2	State	PRC § 5097.5	San Joaquin County Planning Department	Makes it a misdemeanor to remove, without authorization, archaeological or paleontological resources from sites located on public lands.

Table 8.3-5
Summary Of LORS And Compliance (Continued)

Reference found in the AFC Section	Jurisdiction	Authority	Administering Agency	Requirements/Compliance
Cultural: 8.3.5.3	Local	San Joaquin County Planning Department – General Plan Volume I, Sections G and H	San Joaquin County	The county follows all provisions of CEQA. The General Plan Heritage Resource section stipulates the preservation of significant historical and archaeological sites and structures within the county.
Cultural: 8.3.5.3	Local	Alameda County Planning Department	Alameda County	The County follows all provisions of CEQA
Cultural: 8.3.5.3	Local	City of Tracy Planning Department	City of Tracy	The City follows all provisions of CEQA.
Cultural: 8.3.5.4	Industry	None applicable.	--	--

† *This project is not a federal undertaking at this time and is not expected to trigger any of the federal LORS described herein.*

* *This authority is not applicable to the TPP, because there are no federal lands within the TPP project area.*

Table 8.3-6
Agency Contacts

Agency	Contact	Telephone Number
California Energy Commission 1516 9th Street, MS-2000 Sacramento, CA 95814-5512	Dale Edwards	(916) 654-3929
Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814	Debbie Pilas-Treadway Associate Governmental Program Analyst	(919) 653-4038
San Joaquin County Sheriff's Department 7000 Michael N. Cavilis Blvd. French Camp, CA 95231	Baxter Dunn Sheriff-Coroner	(209) 468-4300
Alameda County Coroners Bureau 480 4th Street Oakland, CA 94607	Timothy Buckhout Sheriff-Coroner	(510) 268-7300
Alameda County Planning Department 399 Elmhurst Street Hayward, CA 94544	Bruce Babcock Planner	(510) 670-5400
San Joaquin County Planning Department 1810 E. Hazelton Avenue Stockton, CA 95205	Kerry Sullivan Director of Planning	(209) 468-3140
City of Tracy Planning Department 520 Tracy Blvd. Tracy, CA 95376	Bill Dean Associate Planner	(209) 831-4610

FIGURES

Figure 8.3-1

Figure 8.3-2

Figure 8.3-3

Figure 8.3-4